

## Reanalysis

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## Circassian Case-marker Omission via Structure Removal

### 1. Data

*Observation* (Arkadiev & Testelefs (2014)):

Differential marking in the ergative encoding systems of Circassian (Adyghe and Kabardian) is sensitive to scale effects (Hale (1972), Silverstein (1976), Aissen (2003)) based on specificity, but it is *not* correlated with grammatical function or case:

- The absolutive marker *r* is absent with non-specific indefinite nominals, and present with specific indefinite or definite nominals.
- The ergative marker *m* is absent with non-specific indefinite nominals, and present with specific indefinite or definite nominals.

(1) *Definiteness scale:*

Pro(noun) > Name (PN) > Def(inite) > Indefinite Specific (Spec) > NonSpecific (NSpec)

(2) *Absolutive nominals* (Adyghe):

- a. Pšaše-r ma-k<sup>w</sup>e  
girl-ABS DYN-go  
'The girl is going.'
- b. Pšaše-Ø ma-k<sup>w</sup>e  
girl DYN-go  
'A girl is going.'

(3) *Ergative nominals* (Adyghe):

- a. Pšaše-m žane-(r) ə-də-ɸ  
girl-ERG dress-(ABS) 3.SG.ERG-sew-PST  
'The/a girl made a/the dress.'
- b. \*Pšaše-Ø žane-(r) ə-də-ɸ  
girl dress-(ABS) 3.SG.ERG-sew-PST  
'The/a girl made a/the dress.'
- c. ʔaze=deɸ<sup>w</sup>ə w-jə-ɸe-χ<sup>w</sup>əž'ə-š't  
doctor-good 2.SG.ABS-3.SG.ERG-CAUS-recover-FUT  
'A good doctor will [be able to] cure you.'

*Note:*

Harmonic alignment plus local conjunction of (definiteness and case/grammatical function) scales (as in Aissen (2003)) will not produce the right results: What is prototypical, unmarked for an object (or absolutive argument) should be atypical, marked for a subject (or ergative argument). (Also see de Hoop & Malchukov (2008) for related observations.)

(4) *Scales:*

- a. *GF scale:*  
Su > Obj
- b. *Definiteness scale:*  
Pro(noun) > Name (PN) > Def(inite) > Indefinite Specific (Spec) > NonSpecific (NSpec)

(5) *Harmonic Alignment* (Prince & Smolensky (2004)):

Suppose given a binary dimension  $D_1$  with a scale  $X > Y$  on its elements  $\{X, Y\}$ , and another dimension  $D_2$  with a scale  $a > b > \dots > z$  on its elements  $\{a, b, \dots, z\}$ . The *harmonic alignment* of  $D_1$  and  $D_2$  is the pair of Harmony scales  $H_X, H_Y$ :

- a.  $H_X: X/a \succ X/b \succ \dots \succ X/z$
- b.  $H_Y: Y/z \succ \dots \succ Y/b \succ Y/a$

The *constraint alignment* is the pair of constraint hierarchies  $C_X, C_Y$ :

- a.  $C_X: *X/z \gg \dots \gg *X/b \gg *X/a$
- b.  $C_Y: *Y/a \gg *Y/b \gg \dots \gg *Y/z$

(6) *Harmony scales:*

- a. Obj/NSpec > Obj/Spec > Obj/Def > Obj/PN > Obj/Pro
- b. Su/Pro > Su/PN > Su/Def > Su/Spec > Su/NSpec

- (7) *Constraint hierarchies:*
- a. \*Obj/Pro  $\gg$  ...  $\gg$  \*Obj/Spec  $\gg$  \*Obj/NSpec
  - b. \*Su/NSpec  $\gg$  \*Su/Spec  $\gg$  ...  $\gg$  \*Su/Pro

- (8) *Other constraints:*
- a. MAX(Case):  
Preserve case features.
  - b. \*Case:  
Avoid case features.

*Note:*

MAX(Case) can be *locally conjoined* (Smolensky (2006)) with a constraint hierarchy derived from harmonic alignment; \*Case cannot be conjoined with a constraint hierarchy. (This would be exactly as in Aissen (2003).)

- (9) *Local conjunction:*
- a. \*Obj/Pro&MAX(Case)  
 $\gg$  ...  
 $\gg$  \*Obj/Spec&MAX(Case)  
 $\gg$  \*Obj/NSpec&MAX(Case)
  - b. \*Su/NSpec&MAX(Case)  
 $\gg$  \*Su/Spec&MAX(Case)  
 $\gg$  ...  
 $\gg$  \*Su/Pro&MAX(Case)

*Problem:*

Interspersing \*Case at some point in the hierarchies makes the correct predictions for absolutive-marked objects, but radically wrong predictions for ergative-marked subjects: If \*Case outranks \*Su/NSpec&MAX(Case) so as to trigger case marker deletion with non-specific ergative subjects, it will automatically trigger case marker deletion with all other kinds of ergative subjects, contrary to fact.

- (10) *Rankings:*
- a. \*Obj/Pro&MAX(Case)  
 $\gg$  ...  
 $\gg$  \*Obj/Spec&MAX(Case)  
\*Case  
 $\gg$  \*Obj/NSpec&MAX(Case)

- b. \*Case  $\gg$   
\*Su/NSpec&MAX(Case)  
 $\gg$  \*Su/Spec&MAX(Case)  
 $\gg$  ...  
 $\gg$  \*Su/Pro&MAX(Case)

## 2. DP vs. NP

*Proposal* (Arkadiev & Teselets (2014)):

The case-less arguments instantiate a kind of *pseudo-incorporation*. A pseudo-incorporated nominal can be complex (and is not visibly incorporated into the verb); it qualifies as an NP, whereas case-bearing nominals must be DPs.

- (11) *Properties of pseudo-incorporation related to NP status:*
- a. phrasal, not  $X^0$
  - b. lack of case-marking
  - c. number neutrality
  - d. semantic effects of incorporation
  - e. *V-adjacency*
  - f. scope inertness of quantifiers
  - g. non-specificity
  - h. *inability to antecede pronouns*
  - i. *valency reduction (de-transitivization) of the verb*
  - j. impossible with pronouns
  - k. no articles or other kinds of determiners

*Problem:*

Case-less nominals in Circassian do not show *all* the properties of pseudo-incorporation; they also show some (three) properties that are expected if the nominals are DPs rather than NPs. (The following data are from Kabardian ((12-ab)) and from Adyghe ((12-c-ii)).)

- (12) *Displacement (no V-adjacency), Antecedence of pronouns, Maintaining valency:*
- a. [DP<sub>1</sub> txəλ ] mə twəč'anə-m t<sub>1</sub> š'-j-e-š'ex<sup>w</sup>-zepət  
book this shop-OBL LOC-3.SG.ERG-DYN-buy-FRQ  
'He often buys books in this shop.'
  - b. (i) dəB<sup>w</sup>ase twəč'anə-m sə-k<sup>w</sup>e-rjə, txəλ<sub>1</sub> qe-s-š'ex<sup>w</sup>-a  
yesterday shop-OBL 1.SG.ABS-go-CNV book DIR-1SG.ERG-buy-PST  
'Yesterday I went to the shop and bought a book.'

- (ii)  $\check{z}'\text{ə}$  a-bə<sub>1</sub> s-we- $\check{z}'\text{e}$   
 now DEM-OBL 1WG.ABS-DYN-read  
 'Now I am reading it.'
- c. *Ergative agreement/case without absolutive marker*
- (i) = (a)
- (ii) Pšəše-m žane-Ø ə-də- $\text{ɛ}$   
 girl-ERG dress-(ABS) 3.SG.ERG-sew-PST  
 'The/a girl made a dress.'

*Note:*

(12-b) looks like a case of a *specific* indefinite interpretation. This does not substantially change the above reasoning concerning harmonic alignment.

*Conclusion:*

At least three of the properties of case-less nominals in Circassian suggest a DP- rather than NP-analysis (viz., non-adjacency/syntactic mobility, pronominal binding, and preservation of original valency). Thus, it looks as though one would ideally like to have a theoretical approach where one can have one's cake and eat it at the same time, i.e., where the case-less nominal has NP status for some syntactic processes, and DP status for others.

*A first (unconstrained) possibility:*

One can adopt a multidimensional approach (Haegeman & Riemsdijk (1986), Sadock (1991), Pesetsky (1995)): On this view, some syntactic operations access structure in which a full DP is present with case-marker-less nominals, and other syntactic operations access a structure in which only an NP is present. Both structures exist simultaneously, in different dimensions.

*A second possibility:*

One can adopt a principled approach envisaging the possibility of *structure removal* at the top level (given the Strict Cycle Condition) in the course of the derivation (Müller (2014)).

### 3. A Reanalysis Approach

*Proposal:*

- Case-marker omission with non-specific (or perhaps, more generally, indefinite) nominals in Circassian involves DP-NP reanalysis, a removal of existing structure (created

earlier) in the course of the derivation.

- Such a derivational structure removal is triggered by a designated *Cut* feature on v or V that can be instantiated (or applied) if the DP is non-specific indefinite.
- Unlike what is the case with the passive in Müller (2014) (where the whole DP<sub>ext</sub> argument is removed), in the present case, only the head D (and hence its projection) is affected by the feature. This mirrors the standard difference between (external and internal) Merge of a head vs. a phrase. This difference can be indicated by an appropriate index: [-D-]<sub>h</sub>
- As with DP<sub>ext</sub> in the passive analysis, the DP shell of a non-specific indefinite nominal in Circassian is predicted to have a short life cycle: DP is first created separately, next merged with v/V, and then D is removed again instantaneously.

(13) *Features for v/V*

- a.  $v:[\bullet V \bullet] \succ [\bullet D \bullet] \succ [-D-]_h$
- b.  $V:[\bullet D \bullet] \succ [-D-]_h$

*Question:*

How can the correlation of [-D-]<sub>h</sub> on v/V and (non-specific) indefinite interpretation of the nominal argument be formulated?

*Answer 1:*

v/V and DP undergo an abstract Agree operation with respect to (in)definiteness. [-D-]<sub>h</sub> is instantiated/licensed on v/v only if v/V undergoes (In)Def-Agree. (Interesting, but largely orthogonal, questions then arise regarding valuation vs. checking; in a valuation approach to Agree, (In)Def-Agree must precede (and thereby feed) either [-D-]<sub>h</sub> instantiation, or at least the successful application of the structure removal operation induced by the Cut feature.)

*Answer 2:*

Indefinite interpretation is in fact not a precondition for [-D-]<sub>h</sub>-based Cut operations to apply; rather, [-D-]<sub>h</sub> is instantiated freely on v/V, and if it effects DP-shell deletion, an indefinite interpretation will have to result.

*Conclusion:*

The two possible options mirror the two options arising with accounts of the interpreta-

tional effect of object shift (see Chomsky (2001)). Perhaps the second type of approach is preferable for the reasons that Chomsky suggests; also note that indefinite interpretation would then follow from the order of operations in the same way that other operations in (11) do. (See below.)

## 4. Operations Accessing DP

### 4.1. Subcategorization

*Note:*

Given this approach, c-selection/subcategorization can be massively simplified: v/V uniformly c-selects D if it takes a nominal argument.

### 4.2. Antecedence of Pronouns

*Assumption:*

Only DPs bear a referential index.

*Account of (12-b):*

Once a DP is introduced into the structure, its referential properties are immediately transferred to the semantic representation that is constructed concurrently. Subsequent removal of the DP-shell (hence, by assumption, of the index) comes too late to make coreference impossible. This is an instance of *counter-bleeding*.

### 4.3. Maintenance of Valency

*Assumption:*

Whether ergative (or, for that matter, accusative) can be assigned is determined pre-syntactically, in the numeration (see Müller (2009), which reconstructs Murasugi (1992)). If there are two D items (in the subarray corresponding to a phase), then T and v will assign case (absolutive/nominative and ergative/absolutive, respectively); if there is only one D item, only T will remain as a case-assigning head.

*Account of (12-c):*

The decision whether v assigns ergative or not is made on the basis of information in the numeration. At this point, there are still two DPs. Subsequent removal of one D in the syntax comes too late to block ergative assignment by v along these lines (and local deletion of case features, as argued to take place in passive contexts in Müller (2014), is not available either: If it is DP<sub>int</sub> that is subject to D<sub>h</sub> deletion, its case comes from T, not from v; so there is no local trigger for deleting a case probe on v, as there is in the

passive, where deletion and case assignment involve the same v head). Again, we have a case of *counter-bleeding*.

### 4.4. Displacement

*Assumptions:*

1. Only DPs can undergo movement, NPs cannot do so (perhaps because only phases can undergo movement, see Rackowski & Richards (2005)).
2. *Move over Cut*  
(See Chomsky (1995; 2001), Weisser (2014) on *Merge over Move*, and Georgi (2014) on the option of parametrizing general principles determining the order of elementary operations.)
3. XPs in derived phase edges are not accessible to operations carried out by the phase head anymore. (And every phrase is a phase.)

*Account of (12-a):*

The internal argument DP<sub>1</sub> undergoes movement to the local phase edge position (of VP) *before* its DP-shell is removed by V's Cut ([-D-]<sub>h</sub>) feature. The [-D-]<sub>h</sub> feature on V, which now cannot be discharged anymore by carrying out structure removal, is then simply deleted as a default operation (see Preminger (2011) on probe features). Again, the operation under consideration (movement) is thus *counter-bled* by Cut (or, more precisely, potentially counter-bled since Cut cannot apply anymore).

*Note:*

This account presupposes that indefinite interpretation is possible with DPs and NPs (but the reverse does not hold: If there is only an NP, this signals indefinite interpretation).

*An alternative:*

Cut can apply to a derived specifier after all; and it is only the *first*, local intermediate movement step that requires DP status. In this case, there would be true counter-bleeding of movement by Cut.

## 5. Operations Accessing NP

*Note:*

All the other properties in the list in (11) follow directly from the short life cycle of the DP-shell in contexts involving non-specific indefinite nominals in Circassian. In particular, the *lack of case-marking* is immediately explained if (a) a DP is required for case marking, and

(b) case-marker insertion is a late (possibly post-syntactic) process (see Halle & Marantz (1993), Arregi & Nevins (2012)). This is a standard case of *bleeding*.

## 6. Conclusion

*Take-home message:*

- Operations accessing DP status of non-specific indefinite nominals in Circassian *precede* structure-removal via Cut operations  
→ *counter-bleeding, counter-feeding*.
- Operations accessing NP status of non-specific indefinite nominals in Circassian *follow* structure-removal via Cut operations  
→ *bleeding, feeding*.

*Speculation:*

Parametrization in this area can be accounted for by postulating variability in the order of elementary operations. (The earlier Cut applies in relation to other operations, the less evidence there will be for a DP status of the nominal argument, and vice versa.)

*References*

- Aissen, Judith (2003): Differential Object Marking: Iconicity vs. Economy, *Natural Language and Linguistic Theory* 21, 435–483.
- Arkadiev, Peter & Yakov Testelets (2014): The Challenges of Differential Nominal Marking in Circassian. Ms., Russian State University of the Humanities, Moscow.
- Arregi, Karlos & Andrew Nevins (2012): *Morphotactics: Basque Auxiliaries and the Structure of Spellout*. Springer, Heidelberg.
- Chomsky, Noam (1995): *The Minimalist Program*. MIT Press, Cambridge, Mass.
- Chomsky, Noam (2001): Derivation by Phase. In: M. Kenstowicz, ed., *Ken Hale. A Life in Language*. MIT Press, Cambridge, Mass., pp. 1–52.
- de Hoop, Helen & Andrej Malchukov (2008): Case-Marking Strategies, *Linguistic Inquiry* 39(4), 565–587.
- Georgi, Doreen (2014): Opaque Interactions of Merge and Agree. PhD thesis, Universität Leipzig.
- Haegeman, Liliane & Henk van Riemsdijk (1986): Verb Projection Raising, Scope, and the Typology of Rules Affecting Verbs, *Linguistic Inquiry* 17(3), 417–466.
- Hale, Ken (1972): A New Perspective on American Indian Linguistics. In: A. Ortiz, ed., *New Perspectives on the Pueblos*. University of New Mexico Press, Albuquerque, pp. 87–103.

- Halle, Morris & Alec Marantz (1993): Distributed Morphology and the Pieces of Inflection. In: K. Hale & S. J. Keyser, eds., *The View from Building 20*. MIT Press, Cambridge, Mass., pp. 111–176.
- Müller, Gereon (2009): Ergativity, Accusativity, and the Order of Merge and Agree. In: K. K. Grohmann, ed., *Explorations of Phase Theory. Features and Arguments*. Mouton de Gruyter, Berlin, pp. 269–308.
- Müller, Gereon (2014): The Short Life Cycle of External Arguments in Passive Derivations. Ms., Universität Leipzig.
- Murasugi, Kumiko (1992): Crossing and Nested Paths. PhD thesis, MIT, Cambridge, Mass.
- Pesetsky, David (1995): *Zero Syntax*. MIT Press, Cambridge, Mass.
- Preminger, Omer (2011): Agreement as a Fallible Operation. PhD thesis, MIT, Cambridge, Mass.
- Prince, Alan & Paul Smolensky (2004): *Optimality Theory. Constraint Interaction in Generative Grammar*. Blackwell, Oxford.
- Rackowski, Andrea & Norvin Richards (2005): Phase Edge and Extraction, *Linguistic Inquiry* 36, 565–599.
- Sadock, Jerry (1991): *Autolexical Syntax*. Chicago University Press, Chicago.
- Silverstein, Michael (1976): Hierarchy of Features and Ergativity. In: R. Dixon, ed., *Grammatical Categories in Australian Languages*. Australian Institute of Aboriginal Studies, Canberra, pp. 112–171.
- Smolensky, Paul (2006): Harmonic Completeness, Local Constraint Conjunction, and Feature Domain Markedness. In: P. Smolensky & G. Legendre, eds., *The Harmonic Mind*. Vol. II, MIT Press, Cambridge, Mass., chapter 14, pp. 27–160.
- Weisser, Philipp (2014): Derived Coordination. A Minimalist Perspective on Clause Chains, Converbs, and Asymmetric Coordination. PhD thesis, Universität Leipzig.